

What is claimed is:

1. A method for inhibiting macrophage infiltration at the site of a central nervous system injury comprising the step of administering to an individual an effective amount of an anti- $\alpha_4$  monoclonal antibody.

2. The method according to claim 1 wherein the anti- $\alpha_4$  monoclonal antibody blocks binding between  $\alpha_4$  and a binding partner.

3. The method according to claim 2 wherein the binding partner is VCAM-1.

4. The method according to claim 1 where the anti- $\alpha_4$  monoclonal antibody is selected from the group consisting of the monoclonal antibody secreted by hybridoma 226H and the monoclonal antibody secreted by hybridoma 236L.

5. The method according to any one of claims 1 through 4 wherein the central nervous system injury is a spinal cord injury.

6. A method for reducing inflammation at the site of a central nervous system injury comprising the step of administering to an individual an effective amount of an anti- $\alpha_4$  monoclonal antibody.

7. The method according to claim 6 wherein the anti- $\alpha_4$  monoclonal antibody blocks binding between  $\alpha_4$  and a binding partner.

8. The method according to claim 7 wherein the binding partner is VCAM-1.

9. The method according to claim 6 where the anti- $\alpha_4$  monoclonal antibody is selected from the group consisting of the monoclonal antibody secreted by

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hybridoma 226H and the monoclonal antibody secreted by hybridoma 236L.

10. The method according to any one of claims 6 through 9 wherein the central nervous system injury is a spinal cord injury.

11. A method for modulating  $\text{TNF}\alpha$  release from macrophages comprising the step of contacting said macrophages with an affective amount of an immunospecific  $\alpha_4$  monoclonal antibody.

12. A method for modulating  $\text{TNF}\alpha$  release from splenic phagocytes comprising the step of contacting said phagocytes with an affective amount of an immunospecific  $\alpha_4$  monoclonal antibody.

13. The method according to claim 12 where in the anti- $\alpha_4$  monoclonal antibody inhibits  $\text{TNF}\alpha$  release.

14. The method according to claim 13 wherein the immunospecific anti- $\alpha_4$  monoclonal antibody is selected from the group consisting of the monoclonal antibody secreted by hybridoma 205C and the monoclonal antibody secreted by hybridoma 205E.

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